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TREND OF THE DAIRY-CATTLE INDUSTRY IN THE UNITED STATES AND OTHER COUNTRIES

Simple Charts with Interpretations

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DEPARTMENT CIRCULAR 7

Contribution from the Bureau of Animal Industry
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Washington, D. C. June, 1919

WASHINGTON : GOVERNMENT PRINTING OFFICE : 1919

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GUIDE FOR READING THE CHARTS.

A chart is a simple method of expressing quantities and averages, especially over a period of time to show a trend.

Most of the charts of this series are constructed on a cross-section background with the years indicated at the top and the quantities at the left-hand margin.

Charts of that character are constructed above the base, or zero, line; therefore, all quantities are read as starting from this line.

The single and double shading is used to give distinction and express mass.

Dotted lines, when found as parts of solid lines, connect quantities where the intermediate figures are lacking.

The scale on the margins always should be noted before reading a chart or comparing it with another.

TREND OF DAIRY-CATTLE INDUSTRY.

Few countries kept records of cattle prior to 1850, but from the earliest dependable information it appears that cattle of the world are more numerous lately than at any previous time. The following charts, based on official figures from each of the countries, show, first, the total number of cattle for the years indicated, and, secondly, the number of "cows" or "dairy cows" when that class of stock is reported:

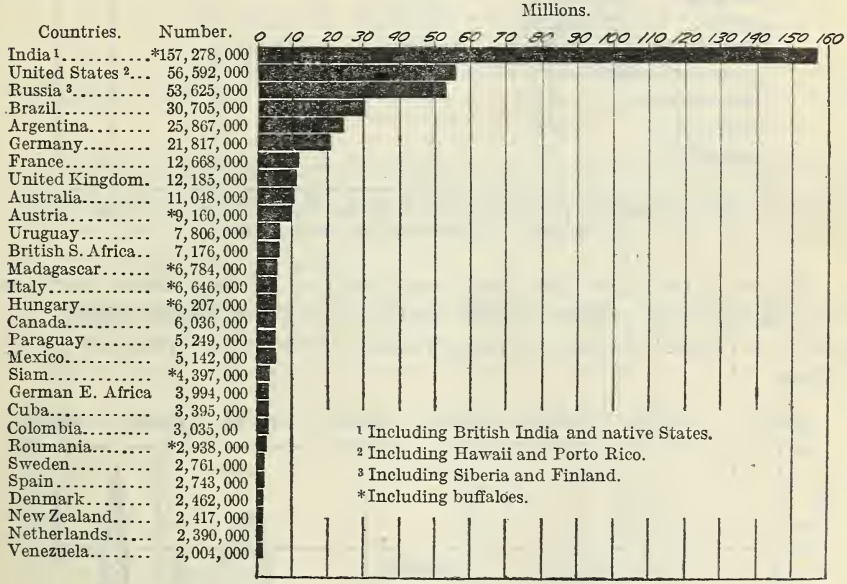

FIG. 1.—Cattle of the world.

Of the 29 leading cattle countries included in figure 1, each had more than 2,000,000 cattle. The figures represent the total number of cattle of all kinds, including young stock and buffaloes (in countries having them), and are for the year 1914, with the following exceptions: Austria is for 1910; Uruguay, 1916; Mexico, 1902; Paraguay, 1915; German East Africa, 1913; Colombia, 1915; Roumania, 1916; New Zealand, 1916; Netherlands, 1915; and Venezuela, 1912.

Owing to wide variations in the quality of herds in different countries, the chart must not be considered as an indication of relative meat or dairy resources.

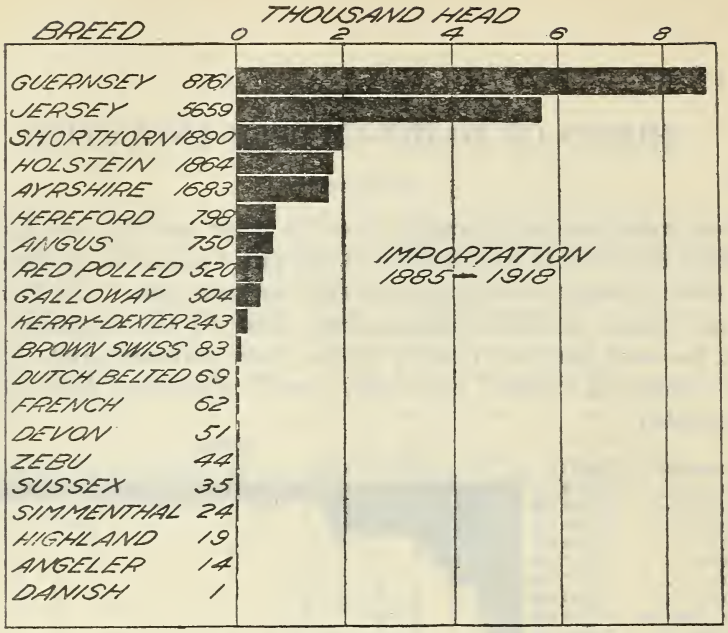

FIG. 2.—Importations of pure-bred cattle into the United States, by breeds, from 1885 to 1918. (Shorthorn includes Durham.)

Figure 2 indicates the kind and quantity of new blood used in developing cattle of the United States during the last 33 years. Of the five breeds leading in importations, four were distinctly dairy types.

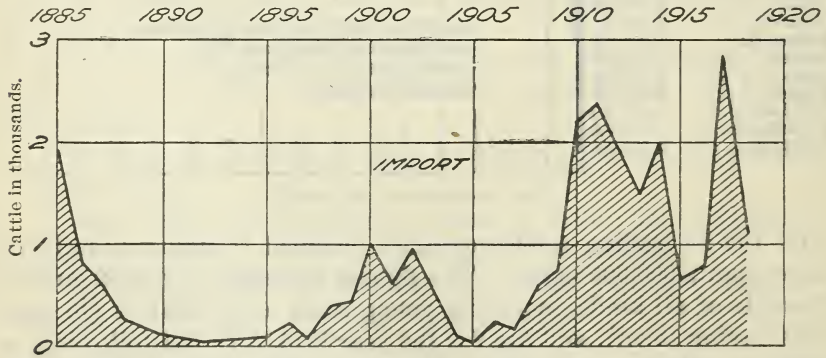

FIG. 3.—Importation of all breeds of pure-bred cattle by years, 1885–1918. (Note: The scale in this chart is not comparable with charts 4 and 5.)

The volume of pure-bred cattle importations has been extremely variable. The break shown in 1914 is attributable to the foot-and-mouth disease outbreak in the United States. Animal disease is an important factor in the international movement of cattle.

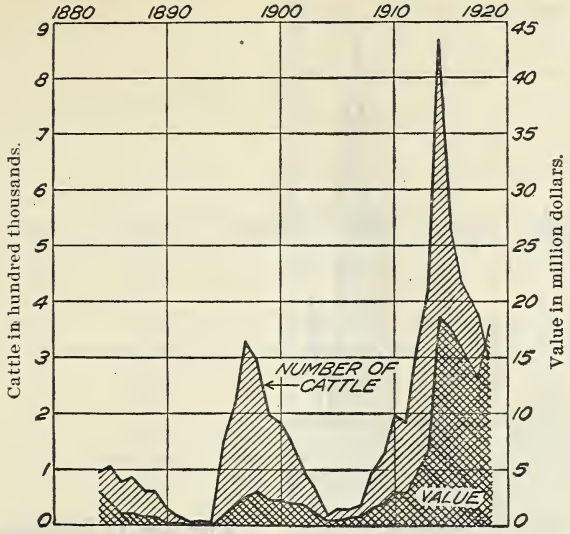

FIG. 4.—Imports in value and numbers of all cattle by the United States (largely meat animals from Canada and Mexico).

The striking increase from 1911 to 1914 is attributable to unrest in Mexico, which encouraged the marketing of Mexican cattle in the United States, combined with removal of the tariff, which also stimulated imports from Canada.

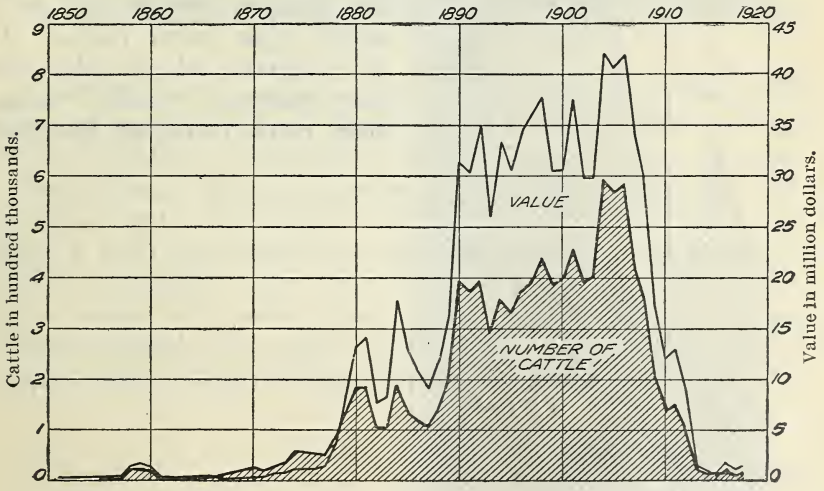

FIG. 5.—Exports in number and value of all cattle from the United States.

Economic conditions brought about a scarcity and rapid decline in exportation after 1906. In any event the exportation of live cattle (except for breeding purposes) is now superseded by refrigerated meats.

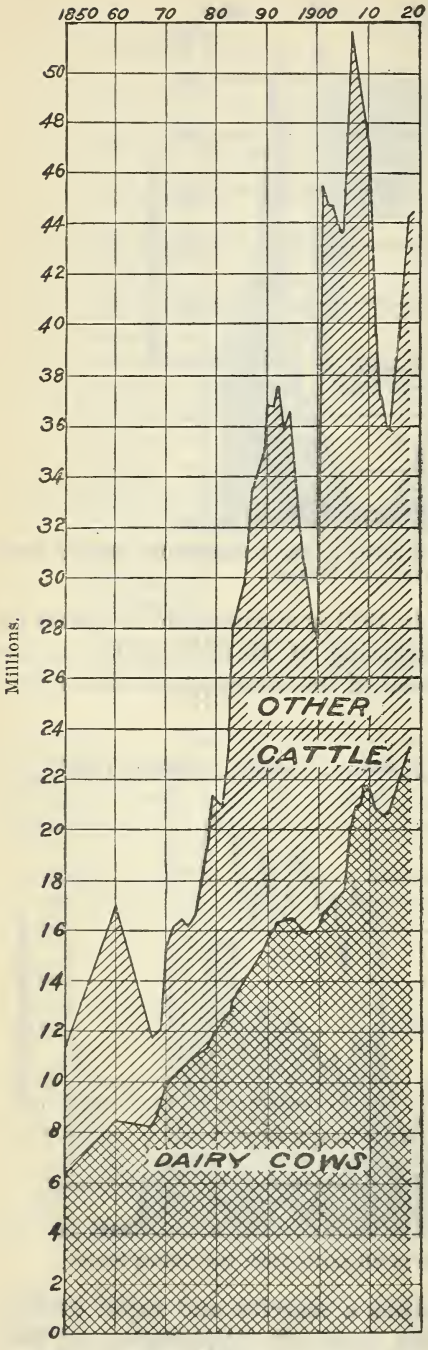

FIG. 6.—United States. Dairy cows and other cattle on farms. (Scale reduced one-half to meet limits of page, but proportions maintained.)

The steady increase in number of dairy cows makes a noteworthy comparison with relative progress in other countries. Also the increase in dairy cows follows in general the increase of other cattle. The total number of cattle for any year equals "dairy cows" plus "other cattle." In the diagrams which follow, the line denoting "cattle" means total cattle including the cows.

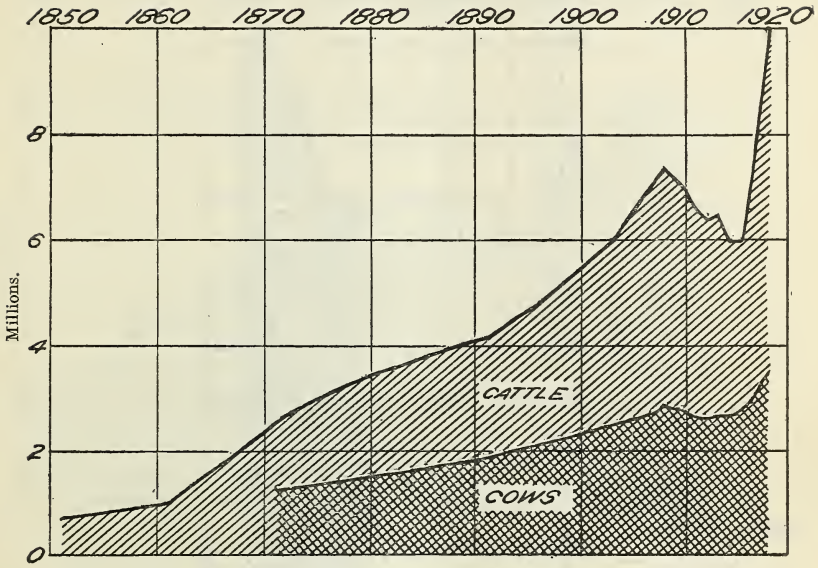

FIG. 7.—Canada. Cows and cattle.

According to the census reports there has been in Canada a continued upward trend of development in both cattle and cows. "Cows" as officially reported are usually kept for dairy purposes.

The sudden decrease in number of cattle beginning about 1908 is explained by the following facts. Increases in population brought about a total consumption of meat temporarily too great for the cattle to maintain. For about 7 years after 1908 there was an active period of breeding and by this method the great western country especially was more liberally stocked and made possible the rapid increase in cattle during the last few years.

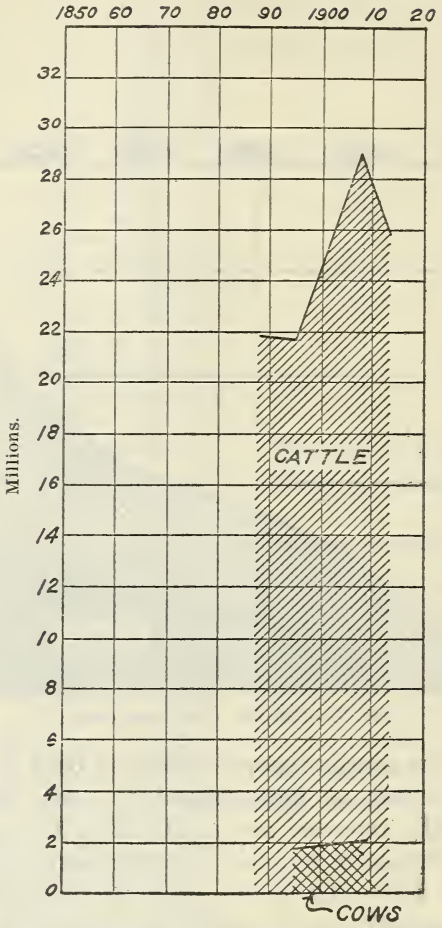

FIG. 8.—Argentina. Dairy cows and cattle. (Scale reduced one-half to meet limits of page, but proportions maintained.)

The cattle industry of Argentina is already highly developed and it is now the principal beef-exporting country of the world. Several of the large United States meat packers are established in Buenos Aires and control a large volume of the trade.

The diagram for all cattle is based on the four census reports—1888, 1895, 1908, and 1914. (Dairy cows are officially classified as "cows.")

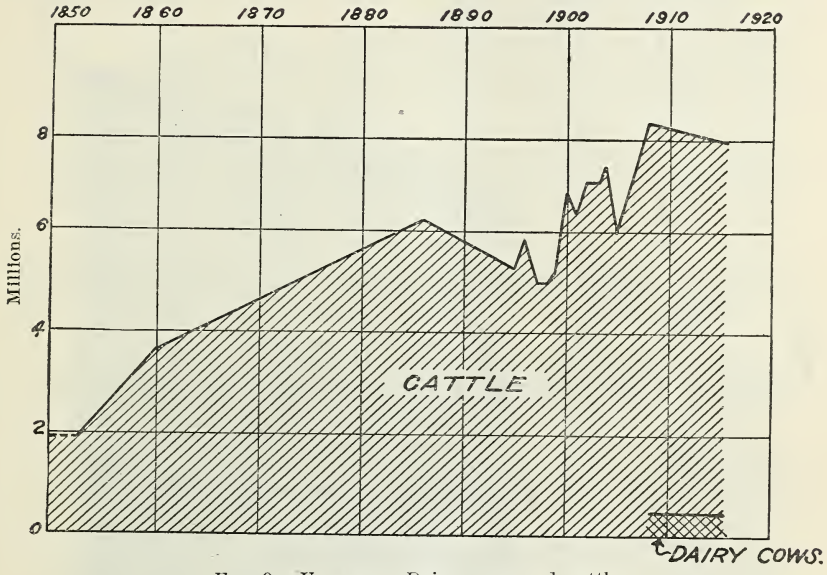

FIG. 9.—Uruguay. Dairy cows and cattle.

As in Argentina, the beef industry of Uruguay overshadows dairying. Mild climate, abundant pasturage, and gradual improvement of cattle have combined to make maintenance of large herds economical.

The herds are so extensive that, according to prewar figures, the cattle outnumber the people nearly 8 to 1. Uruguay had 786 cattle for every 100 persons, which was a greater ratio than in any other country. Paraguay and Argentina were second and third in that respect. The United States was eleventh in order, having 57 cattle per 100 persons. Japan and the Philippine Islands had only 3 head of cattle per 100 persons, the smallest ratio of all countries.

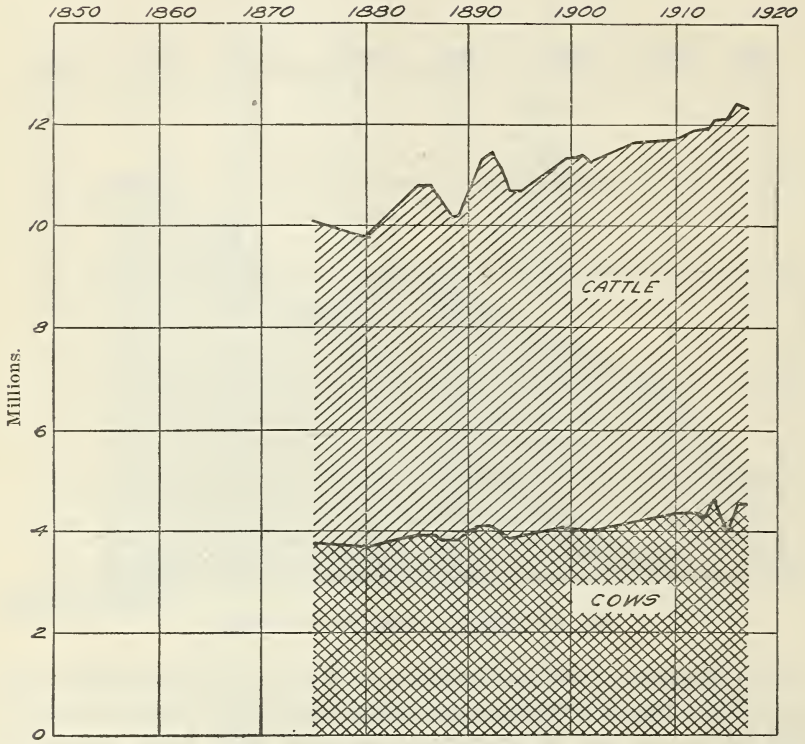

FIG. 10.—United Kingdom (England, Scotland, Ireland, Wales, and Channel Islands). Cows and cattle.

The trend of cows and cattle shown is somewhat similar, though in larger proportions, to the trend of development in countries of northern Europe which require the importation of large quantities of concentrated feedstuffs. On the other hand the United Kingdom shows a smaller proportion of cows kept for milk. The cattle include a very large number of established breeds and some of the beef breeds are of a type with the milk yield well developed. Owing to its large population the United Kingdom, England especially, consumes, in addition to its own products, very large quantities of imported dairy products.

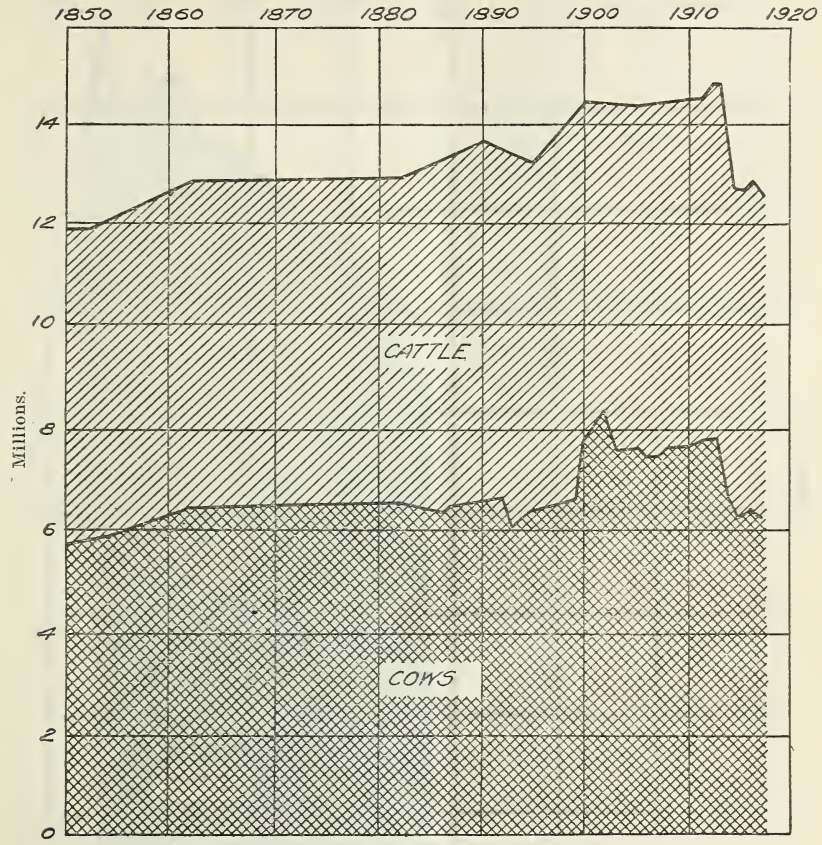

FIG. 11.—France. Cows and cattle.

France has exceptionally complete records of cows and cattle. The regularity of the increase, especially in cows, was broken between 1890 and 1900 and a more decided upward trend is noted. This increase is attributable largely to the establishment of cooperative dairying, which in turn was stimulated by a vine pest which destroyed many vineyards, chiefly in northern France. But the progress of 6 decades in numbers of dairy cows and cattle was practically all lost during the period from 1914 to 1918. The more gradual decline in the number of cows kept for milk compared with the total number of cattle indicates the effort to maintain dairy production during the war.

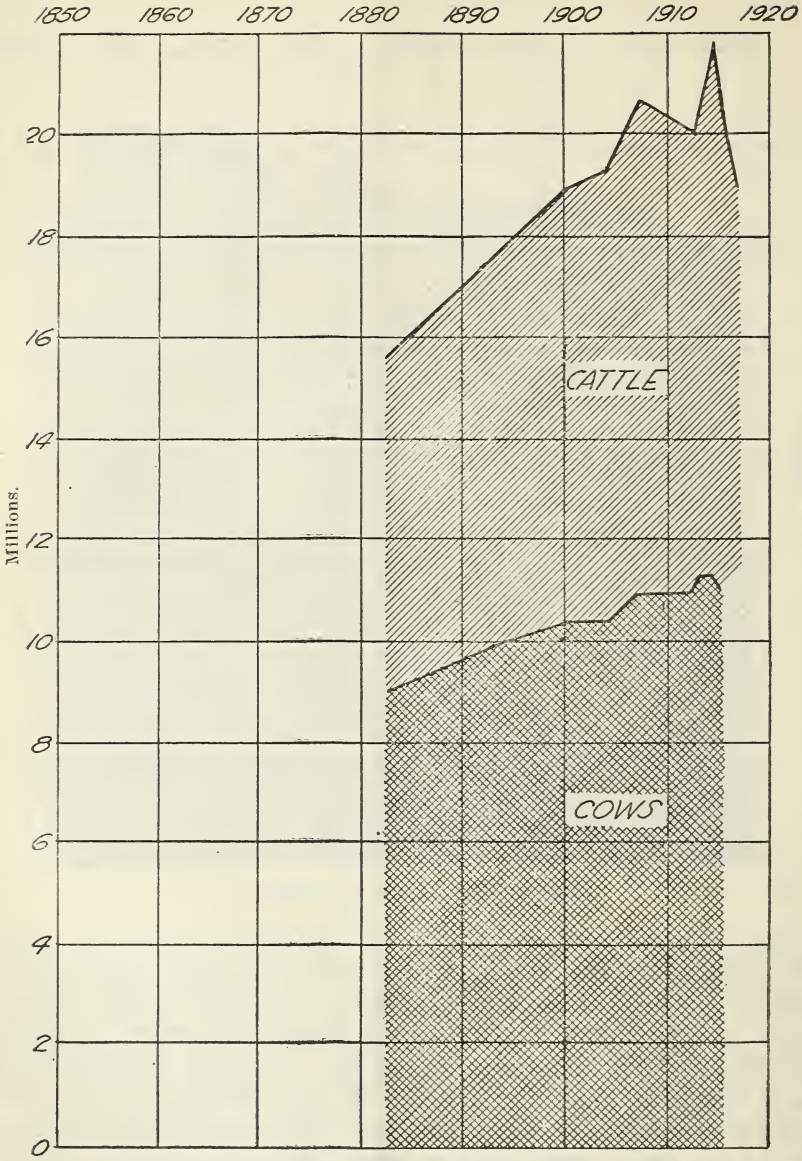

FIG. 12.—Germany. Cows and cattle.

From the date of earliest dependable records, cows and cattle in Germany increased with fair regularity and rapidity until about 1915. Notwithstanding the cattle obtained by conquest, the number decreased in the latter years of the war.

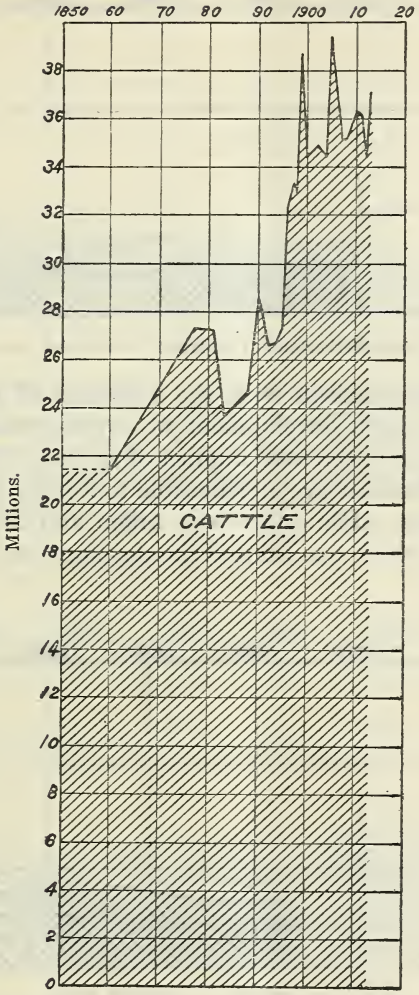

FIG. 13.—Russia (European). Cattle. (Chart reduced one-half to meet limits of page, but proportions maintained.)

Records of the number of cows have not been found in official reports. The total number of cattle, the figure shows, increased rapidly from 1860 to 1913. From common knowledge of Russia's natural resources it is evident that even the present number of cattle is far from the total the country could maintain.

Owing to the changing area of Russian territory covered by successive estimates, the trend of development must be considered as only approximate.

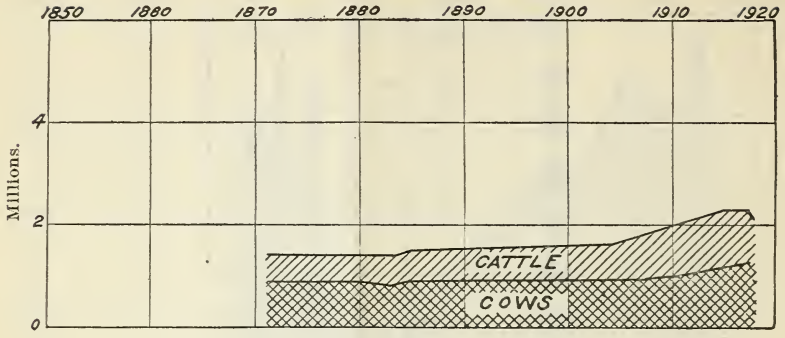

FIG. 14.—Netherlands (Holland). Cows and cattle.

Especially in comparison with the countries of the New World, figure 14 shows a high development of cows—practically all dairy cows—in proportion to the total number of cattle. The comparatively small changes in number are attributable to a high plane of development when the first cattle census was taken and dependence on imported feedstuffs which has limited the development of the industry.

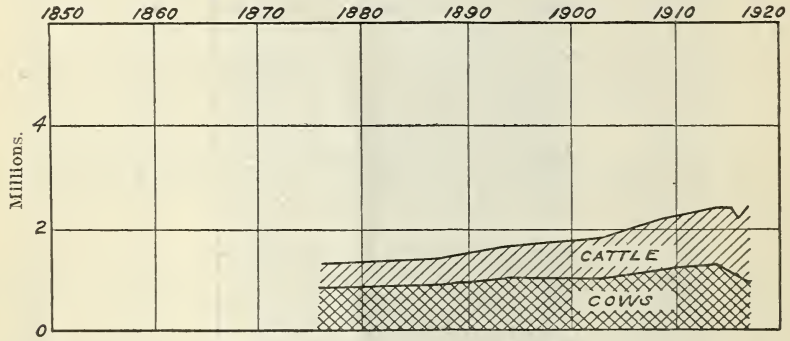

FIG. 15.—Denmark. Cows and cattle.

Like the Netherlands, Denmark shows a comparatively stable condition of both cattle and dairy cows for a long term of years. The fluctuations noticeable since 1914 are attributable to lack of high-protein feeds due to the European war. Oil-cake importation usually amounts to 600,000 tons a year.

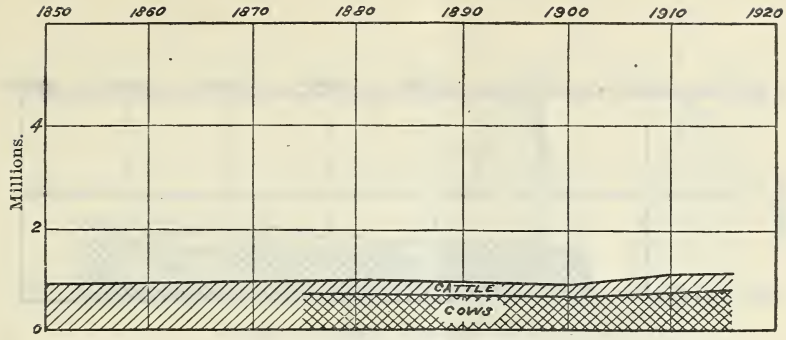

FIG. 16.—Norway. Cows and cattle.

The number of cattle in Norway apparently has been developed to the limit of feed available by home production or economical purchase. The high percentage of cows—principally dairy cows—indicates the logical selection of the class of cattle which most efficiently converts feed into animal food for human use.

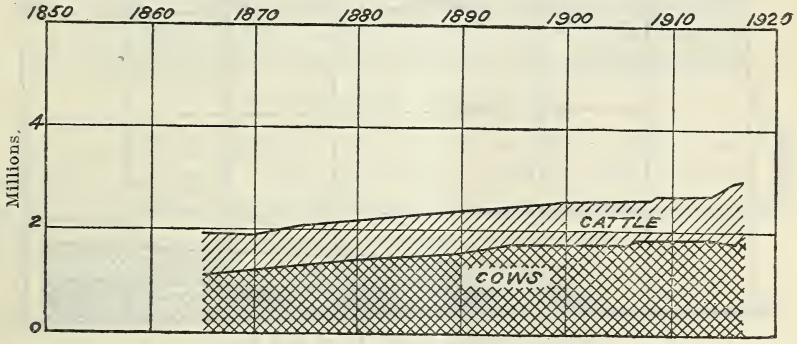

FIG. 17.—Sweden. Cows and cattle.

Cattle in Sweden has shown slight numerical changes, but it is important to explain that all the Scandinavian countries, by skillful breeding and management, have added much to the total output of dairy products by increasing the yield per cow.

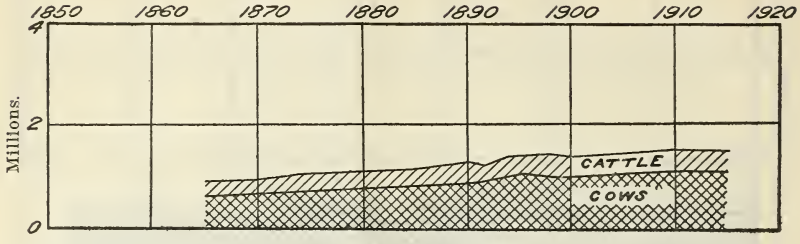

FIG. 18.—Finland. Cows and cattle.

The beef and dairy situation in Finland is similar to that of the Scandinavian countries. Finland has been able, the figure indicates, to increase its herds slightly year by year, a condition probably due to a more complete use of its tillable land for feed production.

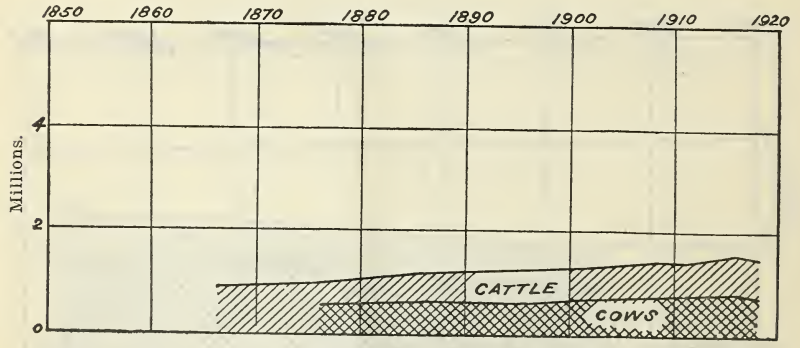

FIG. 19.—Switzerland. Cows and cattle.

Although Switzerland is favorably known for the products of its dairies, the number of milch cows in that country has not yet reached the million mark. Switzerland exports a comparatively large percentage of its dairy products, chiefly cheese and condensed milk.

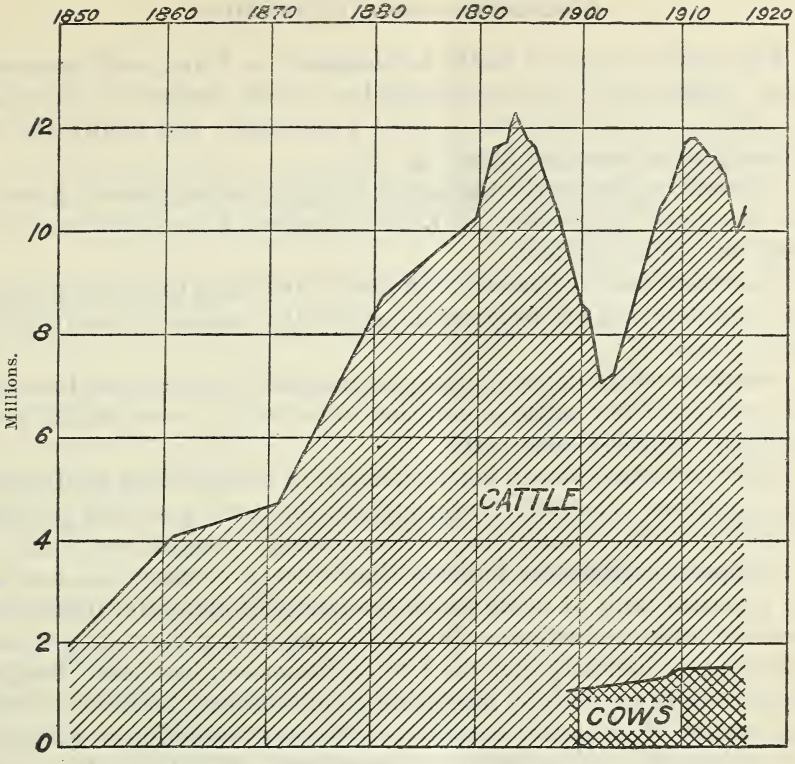

FIG. 20.—Australia. Cows and cattle.

Progress in total number of cattle from 1851 to 1894, the figure indicates, was rapid. The period from 1895 to 1902, inclusive, was marked by severe drought, to which the decline seen may be ascribed. Dairy cows, however, have shown constant increase.

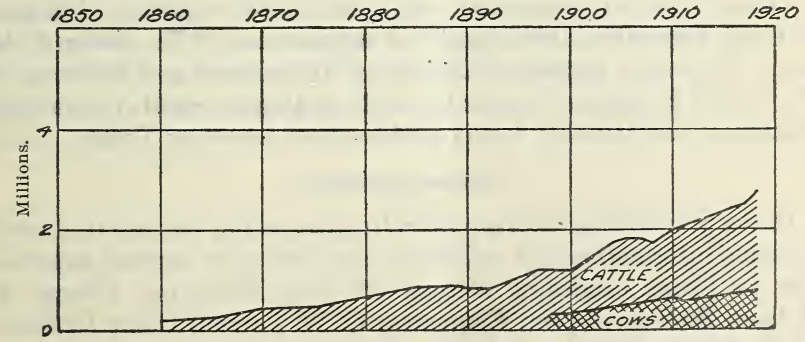

FIG. 21.—New Zealand. Cows and cattle.

The relative prominence of dairy cows compared with all cattle is noteworthy in New Zealand, which is practically the only country in the Southern Hemisphere where this condition prevails.

COMMENTS AND CONCLUSIONS.

The general trend of cattle development is: First, work animals; next, raising cattle for commercial beef; next, commercial dairying in addition to the business of meat production; and finally the increasing prominence of dairying.

Throughout the world the cattle industry shows general growth, but has made its greatest advance in regions where pasturage and feeds are more abundant.

The recent trend of cattle development indicates that beef production and dairying are progressing, generally, outside of the immediate war area.

Countries which depend largely on imported feeds appear to maintain relatively few cattle in addition to their dairy cows, which have gradually replaced other cattle.

Dairy cows have shown less fluctuation in number than total cattle. This condition is noteworthy throughout the world over long periods, including adverse conditions, such as disease, drought, and war.

European experiences indicate that when a country has reached the practical limit of cattle which the land will maintain, further increase of milk production is obtained by improving the yield per cow.

It appears logically that the United States can best meet changed world conditions, first, by increasing simultaneously both the number and quality of its cattle; secondly, by constant attention to economy of production; and thirdly, by maintenance of cattle raising and dairying in conjunction with general farming, thus reducing dependence on purchased feeds.

REFERENCES AND ACKNOWLEDGMENTS.

REFERENCES.

Census reports; yearbooks; official estimates; estimates of Bureau of Crop Estimates, Department of Agriculture; "The Seven Colonies," Australia; reports of Board of Agriculture and Fisheries of the United Kingdom; International Crop Reporter and Agricultural Statistics; and Monthly Bulletin of the Pan American Union.

ACKNOWLEDGMENTS.

In the preparation of this publication the author has received much valuable information and assistance, and desires to express appreciation to Frank Andrews, Bureau of Crop Estimates; George K. Holmes, Bureau of Crop Estimates; C. W. Larson, Dairy Division; D. S. Burch, Bureau of Animal Industry; and Franklin Adams, chief clerk, Pan American Union.

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